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Application No. 10/039,054
Reply to Final Office Action of November 16, 2006
Attorney Docket: 42P12867

AMENDMENT TO THE CLAIMS

Listing of Claims:

1. (Currently Amended) A method for executing a predefined system management mode (SMM)-compatible task while operating under advanced configuration and power interface (ACPI) control, comprising:

generating a system management interrupt (SMI) request under ACPI control when a complex task is encountered;

changing an operation mode of a processor to the SMM in response to the SMI request; and

executing a resume ACPI control process to return the processor to ACPI control after the predefined SMM-compatible task is complete.

2. (Original) The method according to claim 1, wherein changing the operation mode of a processor to the SMM further comprises:

saving processor state map information in a first area of a memory upon reception of the SMI request.

3. (Original) The method of claim 1, wherein generating a SMI request under ACPI control further comprises:

setting SMI enable in a SMI generation register.

4. (Previously Presented) The method of claim 1, wherein generating a SMI request under ACPI control further comprises:

detecting the predefined SMM-compatible task under ACPI control; and

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configuring the processor to access a SMI driver upon detecting the predefined SMM-compatible task.

5. (Previously Presented) The method of claim 4, wherein configuring the processor to access the SMI driver upon detecting the predefined SMM-compatible task comprises:

using a SMI generation register for generating the SMI request during operation of an operating system under ACPI control in response to detection of the predefined SMM-compatible task.

6. (Previously Presented) The method of claim 4, wherein a SMI generation register is configured to generate an SMI signal in response to recognition of the predefined SMM-compatible task.

7. (Currently Amended) A method for executing a predefined system management mode (SMM)-compatible task under advanced configuration and power interface (ACPI) control, comprising:

generating a system management interrupt (SMI) request during operation of an operating system under ACPI control when a complex task is encountered;

changing a mode of a processor to SMM in response to the SMI request;

executing tasks by the processor in the SMM mode;

delegating tasks to various processors to achieve faster execution in SMM mode;

and

returning the processor to ACPI control after the predefined SMM-compatible task is complete.

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8. (Original) The method of claim 7, wherein generating a SMI request under ACPI control further comprises:
- setting SMI enable in a SMI generation register.
9. (Original) The method of claim 7, wherein changing a mode of a processor to SMM in response to the SMI request further comprises:
- saving processor state map information in an area of memory upon reception of the SMI request, and changing the mode of the processor to the SMM.
10. (Previously Presented) The method of claim 7, wherein generating a SMI request under ACPI control further comprises:
- detecting the predefined SMM-compatible task under ACPI control; and
 - configuring the processor to access a SMI driver upon detecting the predefined SMM-compatible task.
11. (Previously Presented) The method of claim 10, wherein configuring the processor to access the SMI driver upon detecting the predefined SMM-compatible task comprising:
- using a SMI generation register for generating the SMI request during operation of an operating system under ACPI control in response to detection of the predefined SMM-compatible task.
12. (Previously Presented) The method of claim 10, wherein a SMI generation register is configured to generate an SMI signal in response to recognition of the predefined SMM-compatible task.

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13. (Currently Amended) A machine readable medium having stored therein a plurality of machine readable instructions executable by a processor to execute a predefined system management mode (SMM)-compatible task in SMM while under advanced configuration and power interface (ACPI) control, comprising:

instructions to generate a system management interrupt (SMI) request during operation of an operating system under ACPI control when a complex task is encountered;

instructions to change a mode of a processor to SMM in response to the SMI request;

instructions to execute tasks by the processor in the SMM mode; and

instructions to return the processor to ACPI control after the predefined SMM-compatible task is complete.

14. (Original) The machine readable medium of claim 13, wherein instructions to generate a SMI request during operation of an operating system under ACPI control further comprises:

instructions to set SMI enable in a SMI generation register.

15. (Original) The machine readable medium of claim 13, wherein instruction to change a mode of a processor to SMM in response to the SMI request further comprises:

instructions to save processor state map information in an area of memory upon reception of the SMI request, and changing the mode of said processor to the SMM.

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16. (Previously Presented) The machine readable medium of claim 13, wherein instructions to generate a SMI request during operation of an operating system under ACPI control further comprises:

instructions to detect the predefined SMM-compatible task under ACPI control;
and

instructions to configure the processor to access the SMI driver upon detecting the predefined SMM-compatible task.

17. (Previously Presented) The machine readable medium of claim 16, wherein instructions to configure the processor to access the SMI driver upon detecting the predefined SMM-compatible task further comprises:

instructions to generate the SMI request during operation of an operating system under ACPI control in response to detection of the predefined SMM-compatible task.

18. (Previously Presented) The machine readable medium of claim 16, further comprising:

instructions to configure a SMI register to generate a SMI signal in response to recognition of the predefined SMM-compatible task.